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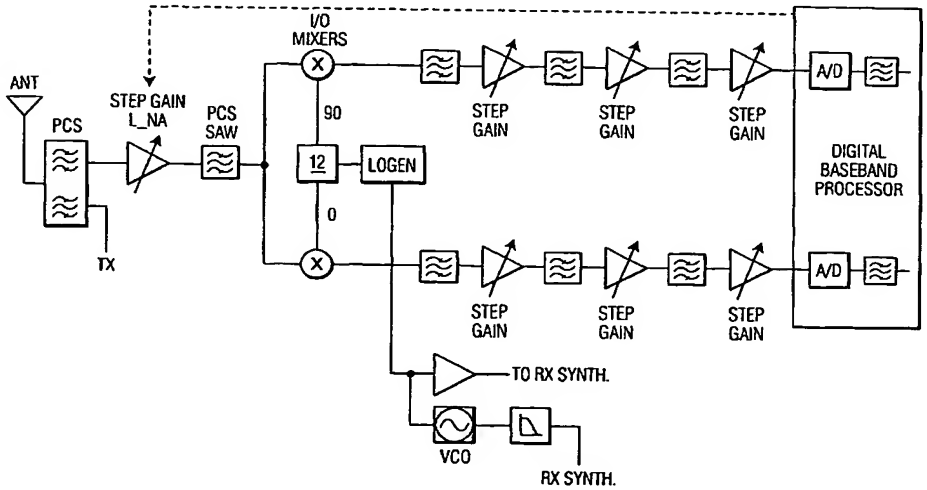
(54) Title: AUTOMATIC GAIN CONTROL USING SIGNAL AND INTERFERENCE POWER TO OBTAIN EXTENDED BLOCKING PERFORMANCE



(57) Abstract: In a radio including analog and digital portions, with at least one A/D converter between the analog and digital portions, and the selectivity of the radio at least partly implemented in the digital domain, an AGC controller sets a first variable gain amplifier (VGA) (302) to low gain upon a determination that a wide-band power estimation exceeds a wide-band threshold. The wide-band threshold is selected to reduce the occurrence of A/D converter saturation. If the wide-band power estimation is less than the wide-band threshold, then for each VGA (302) in the analog portion, a determination is made whether a narrow band power estimate exceeds a narrow-band threshold, corresponding to that VGA (302), plus a hysteresis value, in which case that VGA (302) is set to low gain; or whether the narrow-band energy estimate is less than the narrow-band threshold minus a hysteresis value, in which case that VGA (302) is set to high gain.

WO 2004/047323 A1